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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,190	11/26/2003	Philip Trainer	DCL2020/M5034	9022

40536 7590 10/10/2007  
MR. BARRY D. JOSEPHS  
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SALEM, MA 01970

EXAMINER
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RUTHKOSKY, MARK

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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10/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/723,190		TRAINER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Mark Ruthkosky		1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 23-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/26/2003; 11/10/2005</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed 11/26/2003 and 11/10/2005 have been placed in the application file, and the information referred to therein has been considered as to the merits.

### ***Drawings***

The drawings filed on 11/26/2003 have been approved.

### ***Election/Restrictions***

Applicant's election of Group I, claims 1-32, in the reply filed on 4/10/2007, is acknowledged. Further, applicant's election of species II, claims 11-22 is noted.

Applicant's election with traverse of the restriction in the reply filed on 4/10/2007 is acknowledged. The traversal is on the ground(s) that the inventions are related so as to contain overlapping subject matter. This is not found persuasive because the method claims are the product claims are to different inventions. The differences are noted in the restriction. Applicant has not addressed the reasoning in the restriction. With regard to the species, applicant argues that the species share a common feature. Again, this argument is not persuasive. Because the inventions are species, they will share a common feature. Applicant has not argued that the species are obvious variants, and therefore the species will be examined as elected.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 13, 15, and 17-18 are rejected under 35 U.S.C. 102 (b) or in the alternative over 35 U.S.C. 103(a) as being unpatentable over et al. GB 851,202.

The instant claims are to a method of adding electrolyte solution to an alkaline cell comprising a casing having an open end and opposing closed end, comprising:

(a) inserting cathode material into the casing so that a cathode surface faces the casing and an opposing exposed cathode surface faces the cell interior;

(b) inserting a separator into the casing so that a surface of the separator faces said exposed surface of said cathode, there being a gap between at least a portion of said separator and the cathode;

(c) inserting anode material into said casing so that the separator is between said anode and cathode;

(d) adding alkaline electrolyte solution to said gap, wherein at least a portion of said added electrolyte is absorbed into the anode thereby causing the anode to expand and close said gap between separator and cathode.

GB 851,202 teaches a method of adding electrolyte solution to an alkaline cell comprising a casing having an open end and opposing closed end, comprising:

(a) inserting cathode material into the casing so that a cathode surface faces the casing and an opposing exposed cathode surface faces the cell interior; (b) inserting a separator into the casing so that a surface of the separator faces said exposed surface of said cathode, there being a gap between at least a portion of said separator and the cathode; (c) inserting anode material into said casing so that the separator is between said anode and cathode; (d) adding alkaline electrolyte solution to said gap, wherein at least a portion of said added electrolyte is absorbed into the anode thereby causing the anode to expand and close said gap between separator and cathode. Zinc and manganese dioxide electrode are noted along with a KOH electrolyte. The separator has a bag shape and an oblong configuration (page 2, line 75 and the figures.) Thus, the claims are anticipated.

The reference does not specifically teach there being a gap between at least a portion of said separator and the cathode, however, there must inherently be a gap for the expansion of the

Art Unit: 1745

electrode active material. As the materials of the reference and the instant specification are the same, the expansion must be equivalent of the battery would explode.

Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over et al. GB 851,202 in view of Benczur-Urmossy (US 4,039,729.)

The teachings of the prior art are not in the previous section. The reference does not teach that the casing is a cuboid or that the gap has a width between about 2-4 mm. US 4039729 teaches a battery having a spacing between the current collector of the zinc electrode and the auxiliary structure is 0.5 to 8 mm (claims 1-11 and 42.) The battery includes a zinc anode and is filled with 8 M KOH. The current-discharge structures of the zinc electrodes are likewise inserted in grooves. Fixed by the grooves, spaces are produced extending parallel to the surfaces of the electrodes; these spaces are defined by the zinc current collector grids and the separator layers between the latter and the auxiliary electrode and have a thickness of 2 mm. Into these spaces is charged 100 ml. of electrolyte made up of 10 M of KOH with an addition of 0.3 M of  $K_2SiO_3$  and a zinc concentration of 250 g. of Zn per liter. The cell is charged. It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow for a gap between at least a portion of said separator and the cathode in order to allow for electrolyte addition and to prevent the expanded electrodes from breaking the battery casing.

With regard to the sizes and shapes of the casing, it is a design known in the art to determine the shape of the cell (MPEP 2144.04.) With regard to the steps of adding electrolyte, it would be obvious to the skilled artisan to add the electrolyte in increments in order to allow for the electrolyte to fill the voids without an initial expansion that prevents the addition of the

Art Unit: 1745

remaining electrolyte. The artisan would have found the claimed invention to be obvious in light of the teachings of the references.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references include general teachings and relevant features as to the state of the art at the time of the invention.

### ***Examiner Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 1745

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

Mark Ruthkosky

Primary Patent Examiner

Art Unit 1745

*Mark Ruthkosky*  
7.9.07